

524,840

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
26 February 2004 (26.02.2004)

PCT

(10) International Publication Number
WO 2004/016572 A1

- (51) International Patent Classification⁷: **C07C 1/20**, 11/02, B01J 29/06
- (21) International Application Number: **PCT/EP2003/009141**
- (22) International Filing Date: 13 August 2003 (13.08.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
02078355.1 14 August 2002 (14.08.2002) EP
- (71) Applicant (*for all designated States except US*): **ATO-FINA RESEARCH** [—/—]; Société Anonyme, Zone Industrielle C, B-7181 Seneffe (Feluy) (BE).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): **DATH, Jean-Pierre** [BE/BE]; Rue d'Ath 53, B-7970 Beloeil (BE). **VER-MEIREN, Walter** [BE/BE]; Winningstraat 4, B-3530 Houthalen (BE).
- (74) Common Representative: **ATOFINA RESEARCH, S.A.**; Patent Department, Zone Industrielle C, B-7181 Seneffe (Feluy) (BE).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**
— *with international search report*
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: PRODUCTION OF OLEFINS

(57) Abstract: A process for converting a hydrocarbon feedstock to provide an effluent containing light olefins, the process comprising passing a hydrocarbon feedstock, the feedstock containing at least one C₁ to C₆ aliphatic hetero compound selected from alcohols, ethers, carbonyl compounds and mixtures thereof and steam in an amount whereby the feedstock contains up to 80 weight % steam, through a reactor containing a crystalline silicate catalyst to produce an effluent including propylene, the crystalline silicate having been subjected to de-alumination by a steaming step and being selected from at least one of an MFI-type crystalline silicate having a silicon/aluminium atomic ratio of from 250 to 500 and an MEL-type crystalline silicate having a silicon/aluminium atomic ratio or from 150 to 800.

WO 2004/016572 A1